

What Is Claimed Is:

1. A computer in a telecommunications network, comprising:
2 a processor; and
3 a resource management means for enabling said processor to
4 provide standardized management of multiple resources including internal
5 operational resources, external components, and applications processing data,
6 wherein said resource management means comprises one or more resource
7 managers, said resource managers being one of:
8 a semaphore resource manager;
9 a switch controller resource manager;
10 an agent resource manager;
11 a call data block resource manager;
12 a service logic resource manager; or
13 a switch resource resource manager;
14 wherein each of said resource managers comprises:
15 one or more resource manager application programmer interfaces
16 that manage said internal operational resources, said external components, and
17 said applications processing data; and
18 one or more data storing means for enabling said processor to store
19 data in table format related to said internal operational resources, said external
20 components, and said applications processing data.

1 2. A method for managing resources within a network, comprising:
2 (i) sending a query to a resource manager, wherein said resource manager
3 manages information corresponding to a resource, said resource manager
4 complying with a common standard for resource managers within the network;
5 and
6 (ii) managing data stored in memory and organized in table format using
7 said query;

wherein said data is one of:

8 semaphore data;
9
10 switch controller data;
11 agent data;
12 call data block data;
13 service logic program data; or
14 switch data.

A 1 3. A computer, comprising:
2 a processor; and
3 plurality of application programmer interface means for enabling said
4 processor which is connected to a memory, to provide an interface between one
5 or more resource requesters and data organized in a plurality of tables, each of
6 said plurality of tables corresponding to one of a plurality of resources, each of
7 said plurality of application programmer interface means comprising:
8 sending means for sending a query; and
9 managing means for managing data stored in said memory

10 and organized in table format using said query;

11 wherein said application programmer interface means provides system-
12 wide interface with said data;

13 wherein each of said plurality of application programmer interface means
14 complies with a common standard for application programmer interfaces.

1 4. The computer of claim 1, wherein said data within said data storing means
2 comprises one of:

3 switch controller data;
4 call data block data; or
5 service logic program data.

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2 5. The computer of claim 1, wherein said resource management means
further comprises:

3 a tabman resource manager;
4 a queman resource manager;
5 a sysmem resource manager; and
6 a shmmem resource manager.

1 6. The method of claim 2, wherein step (ii) comprises the step of:
2 updating said data stored in said memory and organized in table format
3 using said query.

1 7. The method of claim 2, wherein step (ii.) comprises the step of:
2 retrieving said data stored in memory and organized in table format using
3 said query.

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2 8. The computer of claim 3, wherein said data comprises:

3 semaphore data;
4 switch controller data;
5 agent data;
6 call data block data;
7 service logic program data; and
 switch data.

1 9. The computer of claim 3, wherein one of said application programmer
2 interface means is one of:
3 create table semaphore;
4 initialize table semaphore;
5 create semaphore;
6 initialize semaphore;
7 delete semaphore;

8 attach semaphore;
9 lock semaphore table;
10 unlock semaphore table;
11 lock semaphore table entry;
12 unlock semaphore table entry;
13 lock semaphore one entry;
14 unlock semaphore one entry;
15 recover table semaphore;
16 get semaphore size;
17 get table semaphore value; or
18 print semaphore.

1 10. The computer of claim 3, wherein one of said application programmer
2 interface means is one of:

3 create switch controller common library memory segment;
4 delete switch controller common library memory segment;
5 attach switch controller common library memory segment; and
6 detach switch controller common library memory segment.

1 11. The computer of claim 3, wherein one of said application programmer
2 interface means is one of:

3 set up an operational measurements IPC;
4 update an operational measurements IPC;
5 print an operational measurements IPC;
6 get an operational measurements attribute; and
7 set an operational measurements attribute.

1 12. The computer of claim 3, wherein one of said application programmer
2 interface means is one of:

3 get time;

4 create a heartbeat table;
5 delete a heartbeat table;
6 attach to a heartbeat table;
7 detach from a heartbeat table;
8 create a heartbeat entry;
9 delete a heartbeat entry;
10 get a heartbeat handle;
11 request heartbeat;
12 respond heartbeat;
13 set heartbeat interval;
14 get heartbeat attributes; and
15 print heartbeat table.

1 13. The computer of claim 3, wherein one of said application programmer
2 interface means is one of:
3 create agent segment;
4 delete agent segment;
5 attach agent segment; and
6 detach agent segment.

1 14. The computer of claim 3, wherein one of said application programmer
2 interface means is one of:
3 create agent entry;
4 delete agent entry;
5 update agent state;
6 agent select;
7 agent destination number to terminal identifier conversion;
8 get agent data;
9 set agent data;
10 get agent attribute;

11 set agent attribute;
12 get agent handle;
13 get agent counts;
14 print agent table;
15 print agent entry; and
16 print agent search table.

1 15. The computer of claim 3, wherein one of said application programmer
2 interface means is one of:

3 create group entry;
4 delete group entry;
5 get group handle;
6 get group data;
7 set group data;
8 increase calls queued on group;
9 decrease calls queued on group;
10 get group count;
11 print group table;
12 print group entry; and
13 print group search table.

1 16. The computer of claim 3, wherein one of said application programmer
2 interface means is one of:

3 create assign entry;
4 delete assign entry by keys;
5 delete agent assign;
6 delete group assign;
7 get assign by keys;
8 get assign count;
9 get agent assign count;

10 get group assign count; and
11 print assign table.

1 17. The computer of claim 3, wherein one of said application programmer
2 interface means is one of:

3 create call data block table;
4 delete call data block table;
5 attach call data block table;
6 detach call data block table;
7 create call data block entry;
8 delete call data block entry;
9 call data block search call identifier by port identifiers;
10 get call data block data;
11 set call data block data;
12 print call data block data;
13 return call data block attribute;
14 set call data block attribute;
15 get number call data block entries;
16 print call data block table; or
17 print call data block entry.

1 18. The computer of claim 3, wherein one of said application programmer
2 interface means is one of:

3 create service logic program table;
4 delete service logic program table;
5 attach service logic program table;
6 detach service logic program table;
7 create service logic program entry;
8 delete service logic program entry;
9 get service logic program data;

10 set service logic program data;
11 print service logic program data;
12 get service logic program attribute;
13 set service logic program attribute;
14 service logic program search call identifier by terminal identifier;
15 get service logic program count;
16 print service logic program table; or
17 print service logic program entry.

1 19. The computer of claim 4, wherein said data comprises one or more of:
2 switch controller IPC data;
3 switch controller CPU availability data;
4 switch controller disk availability data;
5 agent operational measurement count data, wherein said agent operational
6 measurement count data is data collected for one or more agents controlled by
7 a switch controller;
8 a switch port operational measurement count data, wherein said switch
9 port operational measurement count data collected for one or more switches
10 controlled by said switch controller;
11 control table data for control tables within said switch controller; or
12 heartbeat data for heartbeating of routines within said switch controller.

1 20. The computer of claim 4, wherein said data stored in said table format
2 comprises:
3 call identifying information;
4 calling number;
5 called number;
6 call leg information; and
7 billing time point information.